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Three Year Short Courses in Agriculture

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Students Waiting to Register in the College of Agriculture on Registration Day

The University

The Ohio State University is a part of the educational facilities maintained by the State. It comprises seven colleges and a graduate school: (1) Agriculture, (2) Arts, Philosophy, and Science, (3) Education, (4) Engineering, (5) Law, (6) Pharmacy, (7) Veterinary Medicine, and the Graduate School.

The College of Agriculture offers ten distinct courses of study:

1. A four-year course in Agriculture.
2. A four-year course in Horticulture.
3. A four-year course in Forestry.
4. A four-year course in Home Economics.
5. A short course in Agriculture.
6. A short course in Horticulture.
7. A two-year course in Animal Husbandry.
8. A special course in Dairying.
9. An eight-week winter course in Agriculture.
10. An eight-week winter course in Poultry Husbandry.

Bulletins describing the work of any of the above colleges or courses will be sent upon request. Address W. E. Mann, University Editor, Columbus, Ohio.

Three Year
Short Courses in Agriculture

ANNOUNCEMENT

The short courses in the College of Agriculture are designed especially to meet the demands of young men on the farm who cannot find time to take the regular courses of the college or for those who have not the necessary educational requirements for admission to the longer courses. There has been a long-felt need for an agricultural course which the rural boy could take without divorcing him from the farm during the greater part of the growing season. It has also been felt that the requirements for the long course have been so high that many young men with high aspirations but only a common school education were barred. The short courses have been planned especially to overcome these objections and to meet the needs of the average farm boy.

The newly designed courses will replace the present two-year courses in Agriculture and Horticulture and will provide very largely the same work except that they will extend over three years of five months each instead of two years of nine months each and will be given during the winter months. These courses are in no way supposed to equal or supplant the four-year courses, but are of inestimable value to those not enabled to take the latter courses.

REQUIREMENTS FOR ADMISSION

The short courses in both Agriculture and Horticulture are open to all students over 17 years of age who have completed the work of the eighth grade and have had one year of practical experience on the farm. A student must present a satisfactory certificate stating that he has had at least one year of practical experience on the farm since he was 12 years of age.

DATE OF OPENING

These courses will open this year on October 19, and close March 19, 1915. A vacation will be given at the Holiday season.

OUTLINE OF SHORT COURSE IN AGRICULTURE

First Year

First Term		Second Term	
Agricultural Chemistry	4 hrs.	Agricultural Chemistry	4 hrs.
Agronomy	4 "	Agronomy	4 "
Animal Husbandry	4 "	Animal Husbandry	4 "
Rural Engineering	4 "	Dairying	3 "
English	3 "	English	3 "

Second Year

Horticulture	4 hrs.	Horticulture	4 hrs.
Agronomy	4 "	Agronomy	4 "
Agricultural Chemistry	4 "	Animal Husbandry	4 "
Dairying	3 "	Shop	3 "
Shop	3 "	Rural Engineering	4 "

Third Year

Rural Economics	4 hrs.	Rural Economics	4 hrs.
Forestry	4 "	Rural Engineering	4 "
Animal Husbandry	4 "	Animal Husbandry	4 "

CHOICE OF TWO FROM THE GROUP BELOW

Poultry Husbandry	3 hrs.	Poultry Husbandry	3 hrs.
Veterinary Medicine	3 "	Veterinary Medicine	3 "
Vegetable Gardening	4 "	Vegetable Gardening	4 "
Bacteriology	4 "	Entomology	4 "
Rural Engineering	4 "	Dairying	4 "
Animal Husbandry	4 "	Animal Husbandry	4 "
Horticulture	4 "	Horticulture	4 "
Plant Pathology	4 "	Horticulture	4 "
Rural Economics	4 "	Rural Economics	4 "

Students Spraying in the University Orchard

OUTLINE OF SHORT COURSE IN HORTICULTURE

First Year

First Term		Second Term	
Agricultural Chemistry	4 hrs.	Agricultural Chemistry	4 hrs.
Horticulture	4 "	Horticulture	4 "
Dairying	3 "	Animal Husbandry	4 "
Horticulture	4 "	Horticulture	4 "
English	3 "	English	3 "

Second Year

Agronomy	4 hrs.	Agronomy	4 hrs.
Shop	3 "	Shop	3 "
Horticulture	4 "	Horticulture	4 "
Rural Engineering	4 "	Rural Engineering	4 "
Elective	3 or 4 "	Elective	3 or 4 "

Third Year

Horticulture	4 hrs.	Horticulture	4 hrs.
Forestry	4 "	Horticulture (Landscape)	4 "
Rural Economics	4 "	Rural Economics	4 "
Elective	7 or 8 "	Elective	7 or 8 "

Electives

Poultry Husbandry	3 hrs.	Poultry Husbandry	3 hrs.
Dairying	3 "	Dairying	3 "
Bacteriology	4 "	Beekeeping	4 "
Animal Husbandry	4 "	Animal Husbandry	4 "
Horticulture	4 "	Horticulture	4 "

CERTIFICATES

At the conclusion of the course, students having completed the regular work as outlined are given a certificate stating the studies pursued during the time spent at the University.

Departments of Instruction

AGRICULTURAL CHEMISTRY

The work in this department deals with the ingredients and food requirements of plants; the air and soil as sources of plant food; nature of soil, mechanical portion, nutritive portion, assimilable and reserve plant food; soil exhaustion and amelioration; barnyard manure, its sources, composition, preservation, and losses; commercial fertilizers and their rational use; home mixing of fertilizers; methods of determining the needs of the soil; composition of feeding stuffs and dairy products.

ANIMAL HUSBANDRY

Courses in this department include studies in the history, development, characteristics, and adaptations of the various breeds of horses, cattle, sheep, and swine; practise work in judging by the use of standard score cards and by judging groups, illustrated with living specimens from the University flocks and herds; the principles of nutrition, the composition of various feeding stuffs and the bearing of this data upon the practises of the feeder; the principles of breeding and their application to the methods concerned in the improvement of live stock; and the principles and practical phases of live stock management, including both commercial and pure bred aspects. Further opportunities for special study in dairy cattle are offered.

AGRICULTURAL ENGINEERING

The work in this department covers four distinct lines: (1) In the study of farm machinery an effort is made to familiarize the student with the fundamental principles underlying the leading types of farm machines, comparisons being made between the standard makes of implements. (2) Application of power to farming operations. Consideration is given to tractors, small engines, windmills, water power, horse power, etc. (3) Farm structures. Instruction is given pertaining to the locating and planning of farm buildings,

estimating the cost of materials for buildings, paints and painting, and concrete work in its various applications to the farm. (4) Drainage is considered from the field end of the work. Practise is given in the use of the drainage level, staking out systems, and establishing grades.

AGRONOMY

The work in the Department of Agronomy covers the subjects of farm crops and soil management. The first year is devoted to a study of the important crops with reference to Ohio conditions, with additional work in seed selection and testing, cultural methods, and harvesting of the grain and forage crops. The course offered the second year is devoted to the study of the soils by means of classroom lectures and laboratory and field exercises with special emphasis upon their management for maximum crop production. The work will consist of a practical discussion of the origin, chemical and physical composition of soils, and the use of rotations, manures, and commercial fertilizers in the maintenance of soil fertility.

Bird's-eye View of the Live Stock Buildings

BACTERIOLOGY

The courses offered in this department deal with the different types of bacteria and their activities, with special reference to the ones connected with soil operations and diseases of the soil; the part played by bacteria in the souring of milk, ripening of cream, sanitation of the dairy; contamination of food products and drinking water; the common infectious diseases, causes and methods of combatting them.

DAIRYING

The Department of Dairying offers the following lines of work: selection of dairy farms; selection and formation of profitable dairy herds; breeding of dairy cows for greater milk production; feeding dairy cows for more economical milk and butter fat production; testing of cows for the advanced registries; the building of sanitary dairy barns and calf barns; milk bottling, butter making, cheese making, ice cream making, and construction of refrigerating plants. Lectures and laboratory work will be given in city milk supply, the testing of dairy products, and the manufacture of butter, cheese, ice cream, and condensed milk.

ENGLISH

Students in the Short Courses will be obliged to do a considerable amount of work in composition, paragraph writing, punctuation, spelling, grammatical construction, speaking and debating, and such work as will be of use to them in the proper expression and writing of their thoughts.

ENTOMOLOGY

This department offers systematic study of the different groups of insects with particular stress laid upon the injurious and beneficial ones; the proper times and methods for controlling and combatting the parasitic insects; the economic importance of insects in agriculture; preparation of collections, etc.

FORESTRY

Work in this department will deal with history of forestry, its objects and economic importance; the relation of forests and woodlands to soil, climate, and general welfare; care of farm woodlots; plantations for post and pole timber; cultivation and management of trees for specific purposes such as windbreaks, hedges, shade and ornament, maple syrup, nuts, etc.; treatment of diseased and injured trees, together with a study of the trees and shrubs on the campus and University woodlot.

HORTICULTURE

In this department is given practical instruction in the problems of fruit growing, relating especially to the home or farm orchard and small fruits. It includes propagation, pruning, budding, and grafting, spraying for the different orchard pests, cultivating, harvesting, and all operations relative to orcharding; a thorough course in vegetable gardening covering cultural methods, soil and fertilizer requirements, favorable climatic conditions and locations, with each garden vegetable separately considered; landscape gardening, covering the

A Pruning Class

making of lawns, walks, drives, the correct planting of trees, shrubs, and flowers for the external adornment of home and public grounds. The new Horticultural Building will enable the department to greatly elaborate the work in this line.

POULTRY HUSBANDRY

Equipment of this department consists of a laying house, pens of all breeds of poultry, brooder house, colony houses, farm poultry house, and incubator cellar. Instruction is given in breeding, feeding, incubating, natural methods of hatching and rearing chicks, turkeys, ducks, and geese; much time is devoted to judging and scoring poultry; each student is required to care for incubators for a number of weeks.

The Central Part of the Campus

RURAL ECONOMICS

The work in this department deals with principles of accounting and their application to farm practise, different systems of keeping farm records, different systems of farm management, cost of producing and marketing farm products; methods of renting, leasing, and operating farm lands. Special attention is paid to different advantages and problems of each system of farm management, together with their effect upon the soil; a study of production, distribution, transportation, and marketing of agricultural products; cooperative organizations of agriculture; cooperative management, insurance, and rural credit; rural social life and organizations. Trips are taken frequently to nearby farms for study and comparison of different systems followed.

SHOPWORK

Two distinct courses are given in shopwork: carpentry and forging. The former includes sawing, planing, mortising, framing, and other work involving the work of simple carpenter tools. In forging is taught the use and care of the forge, fire, and tools; practise in steel forging, including such operations as cutting, bending, drawing, shaping, and welding; the making, hardening, and tempering of steel punches, drills, and cold chisels.

VETERINARY MEDICINE

Courses are given in this department, which deal with the more common disorders and diseases of domestic animals; common infectious diseases, minor surgery, castration, horse-shoeing, and soundness are carefully considered; a brief study is made of the anatomy of the horse and the ox.

Part of the Dairy Herd

EXPENSES

The cost of a course at the University is the vital problem with many students. The expense of a year in college is very largely a personal matter, depending upon the economies or extravagances of the student. Some students will spend two or three times as much as others, consequently no fixed cost can be stated. The following is a list of expenses actually required the first year in the Short Courses. The expenses the next two years will be practically the same:

Incidental fee	$20 00
Ohio Union	2 00
Gymnasium locker	4 00
Deposit to cover laboratory material	20 00
Uniform	12 00
Books	12 00
Board (20 weeks at $3.50 per week)	70 00
Room rent ($8.00 per month)	40 00
Total	$180 00

No account is taken in the above statement of general expenses, such as clothing, laundry, etc. One should plan to spend, in addition to the above amount, from $50.00 to $75.00 for other living necessities. The cost of some of the above items may be reduced slightly, such as room rent, in the event of two students rooming together.

A student should come prepared to spend about $50.00 during the first ten days of the term. After that his board and room rent will be the chief items of expense.

Making Alfalfa Hay on the University Farm

OPPORTUNITIES FOR SELF-HELP

Many students secure employment of different kinds to aid in defraying their college expenses. Many find employment on the University Farm, for which they are paid at the rate of 15 to 20 cents per hour. Others fire furnaces, mow lawns, wait on tables at boarding houses, clerk in stores on Saturdays. *The University does not guarantee or promise work to any one.* The matter of getting employment is left entirely to the student. One with initiative seldom experiences difficulty in finding as much employment as his time will permit.

It is to be remembered that the average student has all he can do to carry his college course without attempting to do outside work. To earn a living and carry a college course is practically impossible and usually culminates in the nervous breakdown of the student. If one expects to pay any large portion of his expenses by outside employment it is highly advisable to arrange to be in school longer than the time actually outlined in the course.

SCHOLARSHIPS

A system of awarding free scholarships has been arranged whereby one scholarship good for three years will be awarded in each county of the state. The scholarships will be awarded by the Ohio Agricultural Commission and will be used as prizes in the Junior Contests conducted by the commission. The scholarship will be awarded to the person winning the contest in which there is the greatest number of entries, provided that person is eligible to enter the college. For particulars concerning the above, address the Ohio Agricultural Commission, Columbus, Ohio.

Registration for the Short Courses

It is necessary for the faculty of the College of Agriculture to know as accurately as possible the number of students who expect to attend the course in order that proper arrangements may be made for their accommodation.

All persons who expect to enroll in either of the Short Courses are required to fill out the blank below and return it promptly to the University. For further information in regard to the Short Courses or other courses offered in the College of Agriculture address,

DEAN OF THE COLLEGE OF AGRICULTURE,
The Ohio State University,
Columbus, Ohio.

Application for Admission

I hereby apply for admission to the Short Course in.....

.....* for the term beginning October 19, 1914.

Name .....

Postoffice .....

County ..... Age .....

How long have you lived on a farm?.....

What schools have you attended besides common schools, and how long?

.....

Date.....1914

* Applicants are requested to state which course (Agriculture or Horticulture) they wish to take.

Students Judging Horses in Action

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